

PROCEEDINGS
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FIVE NEW MAMMALS FROM ASIA.

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The following new forms of mammals have been found in the Asiatic collections in the United States National Museum during progress of work in determining a collection from the Altai Mountains. The descriptions are published here by permission of the Secretary of the Smithsonian Institution.

Lepus aurigineus sp. nov.

Type from Chiu Keang, northern Kiang-si, China. United States National Museum No. 133761, skin and skull of ♀ adult. Collected December 27, 1880.

General characters.—Externally much like *Lepus sinensis*, but more yellowish, less mottled with blackish; sides almost pure unmottled yellowish-buff. Skull with much broader and shorter nasals.

Color of type.—General color of upperparts yellowish-buff, mottled with brownish-black; darkest on head and lower back. Cheeks in front of whiskers, spot before eye, and eye ring, cream buff. Back of ears, outside, buffy brown, exactly the color of top of head, with buff border; inside of back of ears ochraceous; lining of ears cinnamon-ochraceous; tip black. Nape pale cinnamon; sides of body pale yellowish-buff. Legs outside and chest-band pale cinnamon; rest of underparts, including inner sides of legs, pure white, the hairs clear white to base.

Skull.—Differs from the skull of *Lepus sinensis* in being shorter; and in having greater interorbital breadth, much shorter and broader nasals, and heavier supraorbital processes.

Measurements from well shaped dry skin of type.—Length of head and body, 390 mm.; hind foot, 103. The specimen is marked by collector, "head to tail, 20 inches." Skull of type.—Greatest length, 76; zygomatic breadth, 39; greatest length nasals, 32.3; mesal length nasals, 22.2; greatest breadth nasals, 20; least breadth nasals, 12.4; least interorbital breadth, 17.1; length of upper tooth row, alveoli, 14.6.

Remarks.—The superficial resemblance of this hare to a specimen of

Lepus sinensis from Shanghai is remarkable; but a careful comparison of the two species discloses differences of such weight, that it seems unlikely they are of the same group, or that intergradation is possible.

***Lepus quercerus* sp. nov.**

Type from Chuisaya Steppe, Altai Mountains, Siberia. United States National Museum No. 175,446, skin and skull of ♂ adult. Collected July 28, 1912, by N. Hollister. Orig. No. 4405.

General characters.—Like *Lepus zaisanicus* Satunin, but with much longer ears, much less gray, and with a tint of vinaceous-buff throughout coloration of upperparts.

Color of type.—General color of upperparts and sides pinkish-buff, mixed with blackish, and with a decided tint of vinaceous-buff. Sides of nose and base of ears gray; inside of back of ears pale Isabella color, buffy at fold; outside of back nearly white; lining of ears white, a dark brown stripe, for two-thirds the length, near border of buff; tips blackish, extending downwards for 15 millimeters on outside, but showing from inside only as a narrow rim. Nape clay color; rump grayer than back, lacking most of the buffy and vinaceous-buff wash. Tail white, with broad black band above. Outsides of legs pale cinnamon; chest-band dark clay color; rest of underparts, including insides of legs, white, the underfur narrowly gray at base.

Skull.—Differs from skull of *L. zaisanicus* in narrower interorbital region, closely compressed posterior lobe of supraorbital process, attenuated nasals, and less protruding incisors.

Measurements of type.—Head and body, 470 mm.; tail vertebrae, 86; hind foot, 115. Skull: Greatest length, 82; basal length, 64.5; zygomatic breadth, 41.5; greatest length nasals, 34.2; least interorbital breadth, 14.8; alveolar length of upper toothrow, 14.3.

Remarks.—Hares collected in the frontier range of the Little Altai, in the neighborhood of Tchegan-Burgazi Pass, have been provisionally referred to *Lepus zaisanicus* Satunin, with the description of which they agree very well. As Satunin does not describe nor figure the skull of this hare, it is of course impossible to say just what the relationship is. In the foregoing description of the hare of the Chuisaya Steppe, the comparisons are made with these specimens from the Tchegan-Burgazi Pass. The difference in color between the two species is even more pronounced in specimens in the juvenal and post-juvenal pelage than in the adults. The young of the species I have referred to *L. zaisanicus* are gray, while the young of *L. quercerus* in comparable pelage are decidedly yellowish-buff.

***Lepus swinhoei sowerbyæ* subsp. nov.**

Type from Wu-tsai, 20 miles west of Ning-wu-fu, northern Shansi, China; 6000 feet. United States National Museum No. 172,628, skin and skull of ♂ adult. Collected February 5, 1910, by Arthur de C. Sowerby. Orig. No. 365.

General characters.—Like *Lepus swinhoei subluteus*, but with grayer rump, lighter pinkish-buff chest-band, and more white on undersides of fore legs.

Skull.—Larger and heavier than skull of *subluteus*, with larger audital bullae.

Measurements of type.—Head and body, 445 mm.; tail vertebrae, 125; hind foot, 118; ear, 100. Skull: Greatest length, 89; basal length, 72; greatest length nasals, 38; greatest breadth nasals, 19; zygomatic breadth, 42.

Specimens examined.—Two, from the type locality.

At Mr. Sowerby's request this hare is named for Mrs. Sowerby, who accompanied her husband on the trip during which the type was collected and aided materially in the scientific work.

***Lepus brachyurus angustidens* subsp. nov.**

Type from Tate Yama Mountain, Hondo Island, Japan. United States National Museum No. $\frac{13871}{38511}$, skin and skull of ♂ adult. Collected December 14, 1882, by P. L. Jouy.

Characters.—Like *Lepus brachyurus brachyurus*, but more richly colored in both light and dark pelages; upper and lower teeth smaller, the upper cheek teeth conspicuously narrower.

Measurements of type skull.—Greatest length, 88.5 mm.; basal length, 71; zygomatic breadth, 44.5; least interorbital breadth, 18.3; least post-orbital breadth, 10.5; greatest length of nasals, 39; length of upper tooth row, crowns, 15; greatest width upper molars, 6.2; length of lower tooth row, crowns, 15.7.

Remarks.—The northern mountain race appears to be a more richly colored animal than *brachyurus* in any phase; that is, specimens in the ordinary brown coat, and in the somewhat melanistic state common to both regions, are more richly colored than comparable examples from the Tokyo region. The difference in the size of the teeth is quite sufficient to warrant the separation, should the color difference prove unreliable. Temminck gave the distribution of *brachyurus* as all the Japanese Empire; but as the type specimens, still in the Leyden Museum, were collected by Siebold, there can be no doubt that, in dividing the species, the new name should be given to the form inhabiting the northern mountains. My comparisons have been made with a series of seven skins and skulls from Hitachi Province, north of Tokyo. The name *Lepus brachyotis* Swinhoe, Proc. Zool. Soc. London, 1862, p. 360, is an accidental renaming of *Lepus brachyurus* Temminck. I am informed by Dr. Leonhard Stejneger that the recognition of this additional Japanese hare is in entire accord with the faunal areas of Hondo.

***Eutamias asiaticus altaicus* subsp. nov.**

Type from Tapucha, Altai Mountains, Siberia; 6900 feet. United States National Museum No. 175,501, skin and skull of ♂ adult. Collected August 8, 1912, by N. Hollister. Orig. No. 4474.

General characters.—Like *Eutamias asiaticus asiaticus*, but darker and less brightly colored; rump, hips and legs especially darker, with less bright yellowish-buff in the coloration.

Skull.—The skull averages larger than that of *E. asiaticus*; posterior border of zygomatic process of squamosal leaves braincase at same angle as general bow of zygomatic arch [in *asiaticus* more at right angles with sides of zygomata, with conspicuous concavity behind].

Measurements of type.—Head and body, 167 millimeters; tail vertebrae, 105; hind foot, without claws, 35.5. Skull: greatest length, 41.4; condylobasal length, 37.5; zygomatic breadth, 23.4; least interorbital breadth, 9.5; alveolar length of upper tooth row, 6.5.

Remarks.—As it becomes necessary to divide into two forms the chipmunks heretofore known as *Eutamias asiaticus asiaticus* (Gmelin), the name *asiaticus* may properly be restricted to the subspecies characterized by Dr. J. A. Allen in 1903* from Giehiga. In the present account of *E. a. altaicus*, I have been able to compare the series of twelve specimens of the new form directly with six specimens from Giehiga, in the same pelage, kindly lent me by Doctor Allen.

* Bull. Amer. Mus. Nat. Hist., XIX, pp. 137-139, 1903.